Amendments to the Claims

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

Claims 1 - 41 (Cancelled)

42. (Currently Amended) The process according to claim ~~41~~69, wherein said heat-treating is carried out at a temperature range of from 45°C to 95°C.

43. (Previously Presented) The process according to claim 42 wherein said heat-treating is carried out at 55°C.

44. (Previously Presented) The process according to claim 42, wherein said heat-treating is carried out at 75°C.

Claims 45 - 46. (Cancelled)

47. (Currently Amended) The process according to claim ~~39~~69, wherein said donor cell is selected from the group consisting of embryonic cells, fetal cells, and somatic cells.

48. (Currently Amended) The process according to claim ~~39~~69, wherein said donor cell is a cultured cell.

49. (Currently Amended) The process according to claim ~~39~~69, wherein said donor cell is a ~~granulose~~ granulosa cell.

50. (Currently Amended) The process according to claim ~~39~~69, wherein said donor cell is a non-living cell.

51. (Currently Amended) The process according to claim ~~39~~69, wherein said chromatin is subjected to at least one genetic modification.

52. (Currently Amended) The process according to claim 51 wherein said genetic modification ~~includes~~ comprises the insertion of at least one heterologous DNA.

53. (Currently Amended) The process according to claim 51 wherein said genetic modification ~~includes~~ comprises the deletion of at least one homologous gene.

54. (Currently Amended) The process according to claim 51 wherein said genetic modification ~~includes~~ comprises the modification of at least one homologous ~~group~~gene.

55. (Currently Amended) The process according to claim 51 wherein said genetic modification ~~includes~~ comprises the duplication of at least one homologous gene.

56. (Cancelled)

57. (Currently Amended) The process according to claim ~~39~~69, wherein said denaturing treatment is carried out on the nucleus, said nucleus being inside the donor cells.

58. (Cancelled)

59. (Currently Amended) The process according to claim ~~39~~69, wherein said oocyte is matured *in vitro*.

60. (Currently Amended) The process according to claim ~~39~~69, wherein the nuclear transfer is carried out by injecting the donor nucleus into the recipient cell.

61. (Currently Amended) The process according to claim ~~39~~69, wherein the animal embryo belongs to a species selected from the group consisting of mouse, rat, rabbit, guinea pig, and fur species.

62. (Currently Amended) The process according to claim ~~39~~69, wherein said non-human mammalian species is an ungulate animal.

63. (Previously Presented) The process according to claim 62 wherein said ungulate species is selected from the group consisting of cattle, sheep, goat, pig, water buffalo, and horse.

64. (Currently Amended) A process for generating an animal comprising:

a. culturing an animal embryo reconstructed according to claim ~~39-~~69 to obtain blastocysts;

b. transferring the blastocysts into a suitable implant animal;

c. causing said animal embryo to develop to term; and

d. further breeding the resulting animal.

Claim 65. (Cancelled)

66. (Previously Presented) The process according to claim 64, wherein the embryo of step a is a genetically modified embryo.

67. (Previously Presented) The process according to claim 66, wherein said embryo is genetically modified prior to development to term.

68. (Previously Presented) The process according to claim 64, wherein step a is carried out *in vivo*.

69. (New) A process for reconstructing an animal embryo of a non-human mammalian species comprising the steep of transferring into a recipient cell a diploid nucleus from a donor cell or the donor cell including said nucleus, said donor cell being a G_1 or G_0 cell from the same non-human

mammalian species and said recipient cell being an enucleated metaphase II oocyte of a non-human mammalian species, wherein the chromatin within said nucleus is subjected to denaturing by heat-treating conducted at melting temperature of the transcriptional regulatory proteins prior to transfer into the recipient cell, said recipient cell being further activated and cultured *in vitro* or *in vivo*.